OBLON ET AL (703) 413-3000
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FIG. 1

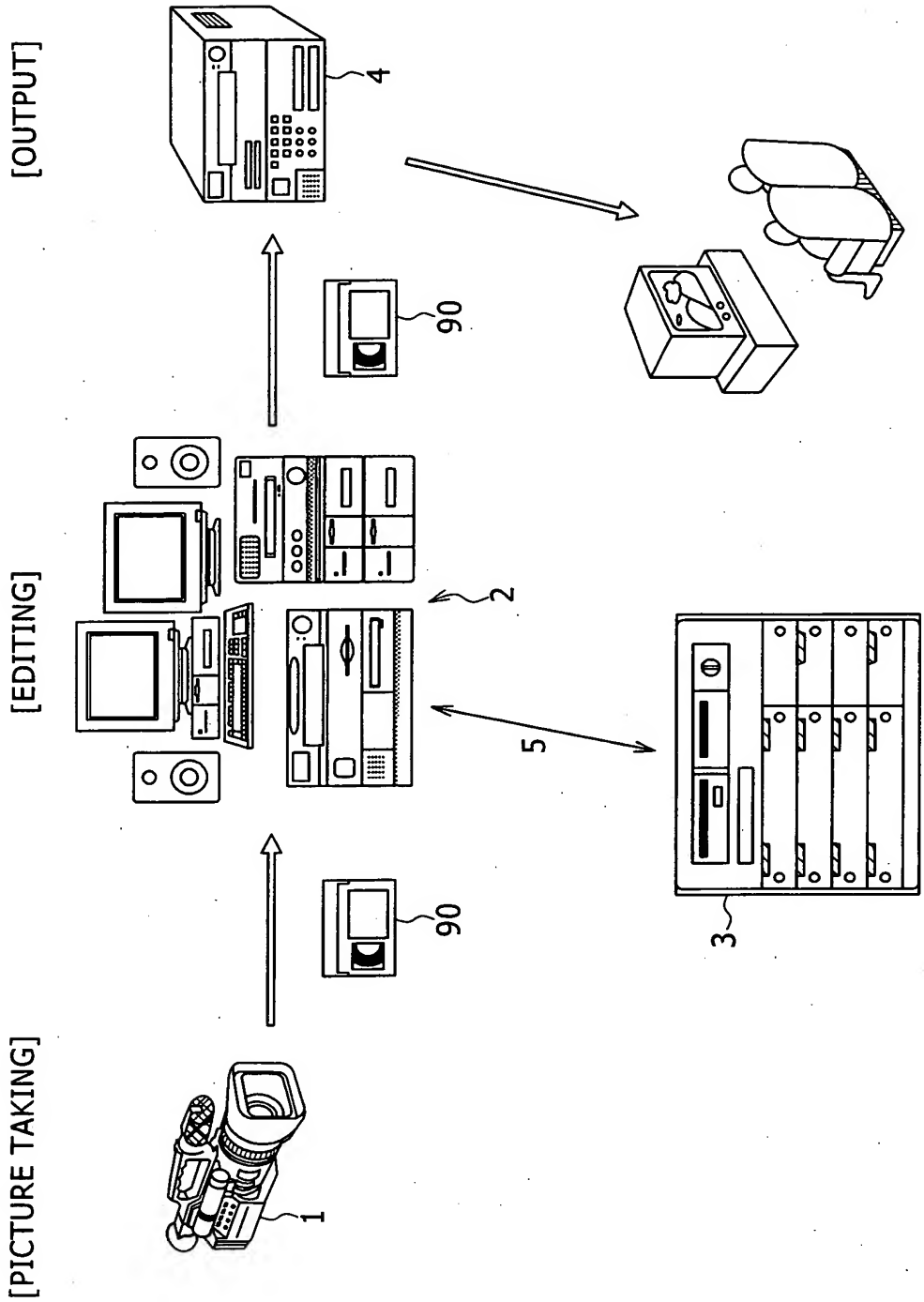


FIG. 2

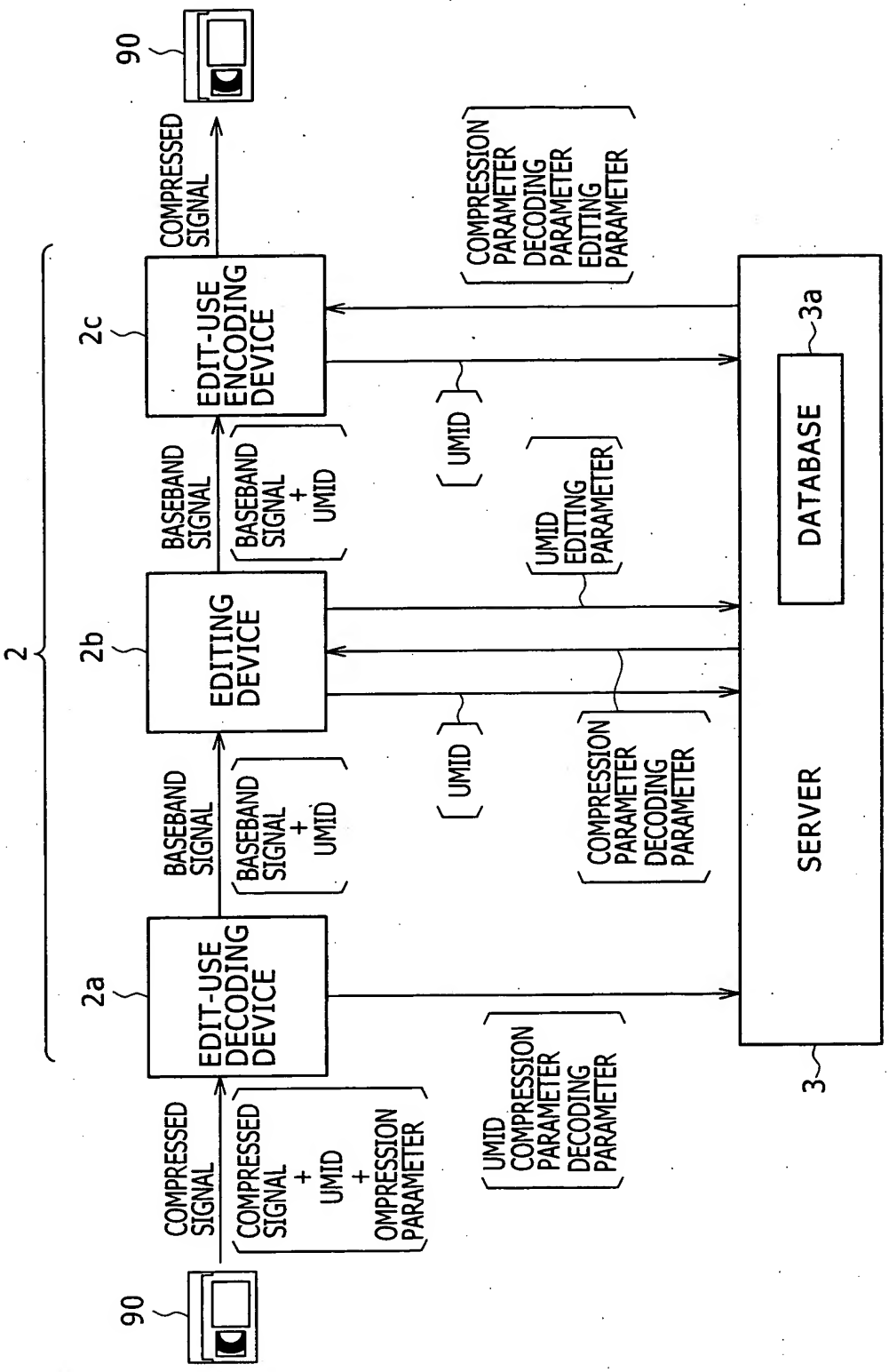

90
COMPRESSED SIGNAL
2c
EDIT-USE ENCODING DEVICE
COMPRESSION PARAMETER DECODING PARAMETER EDITING PARAMETER
BASEBAND SIGNAL
BASEBAND SIGNAL + UMID
UMID
UMID EDITING PARAMETER
2
2b
EDITING DEVICE
3a
DATABASE
BASEBAND SIGNAL
BASEBAND SIGNAL + UMID
UMID
COMPRESSION PARAMETER DECODING PARAMETER
SERVER
2a
EDIT-USE DECODING DEVICE
COMPRESSED SIGNAL
COMPRESSED SIGNAL + UMID + OMPRESSION PARAMETER
UMID COMPRESSION PARAMETER DECODING PARAMETER
90
3

FIG. 3

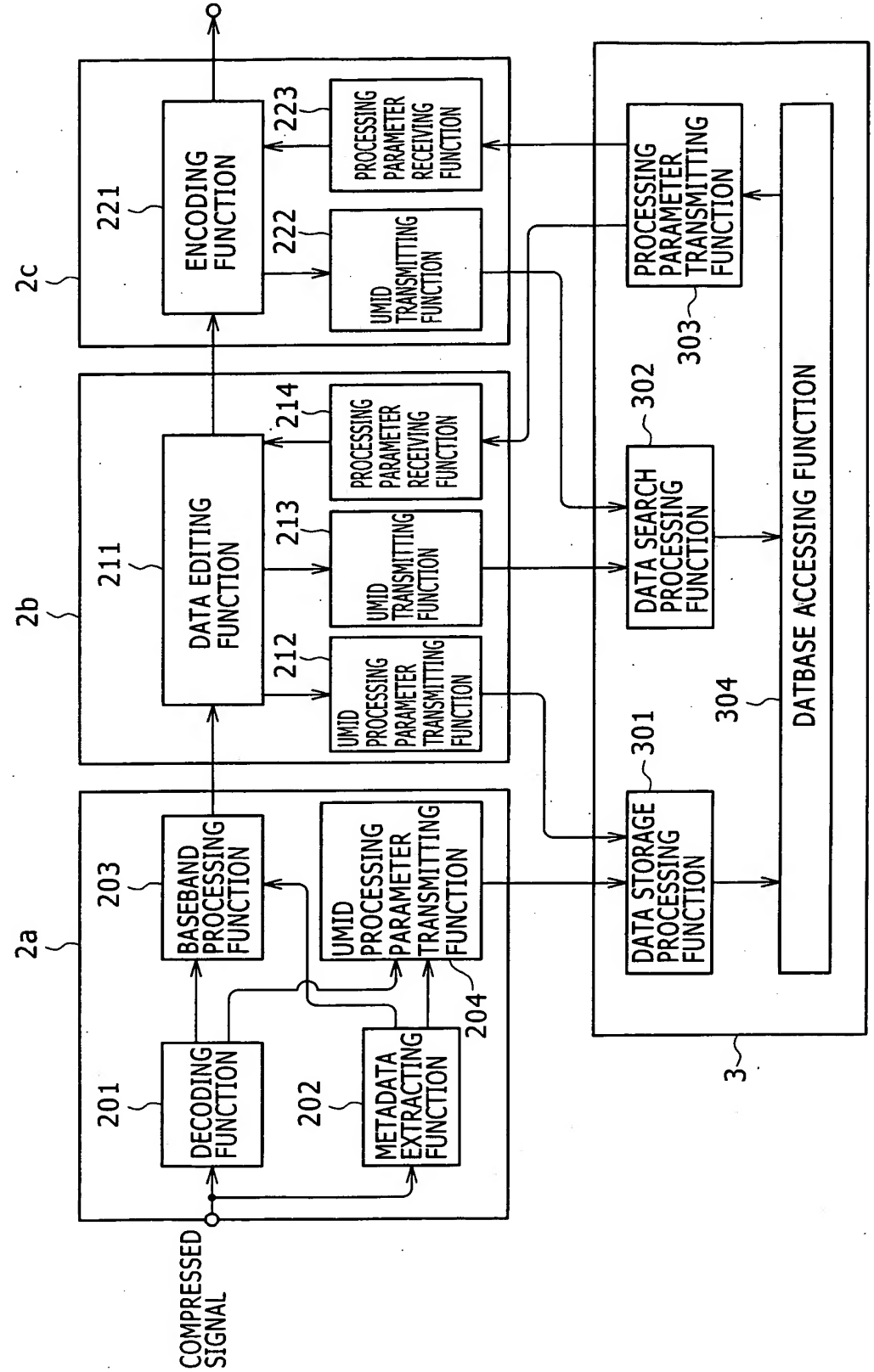

COMPRESSED SIGNAL
2a
201
DECODING FUNCTION
202
METADATA EXTRACTING FUNCTION
203
BASEBAND PROCESSING FUNCTION
204
UMID PROCESSING PARAMETER TRANSMITTING FUNCTION
2b
211
DATA EDITING FUNCTION
212
UMID PROCESSING PARAMETER TRANSMITTING FUNCTION
213
UMID TRANSMITTING FUNCTION
214
PROCESSING PARAMETER RECEIVING FUNCTION
2c
221
ENCODING FUNCTION
222
UMID TRANSMITTING FUNCTION
223
PROCESSING PARAMETER RECEIVING FUNCTION
3
301
DATA STORAGE PROCESSING FUNCTION
302
DATA SEARCH PROCESSING FUNCTION
303
PROCESSING PARAMETER TRANSMITTING FUNCTION
304
DATBASE ACCESSING FUNCTION

FIG. 4

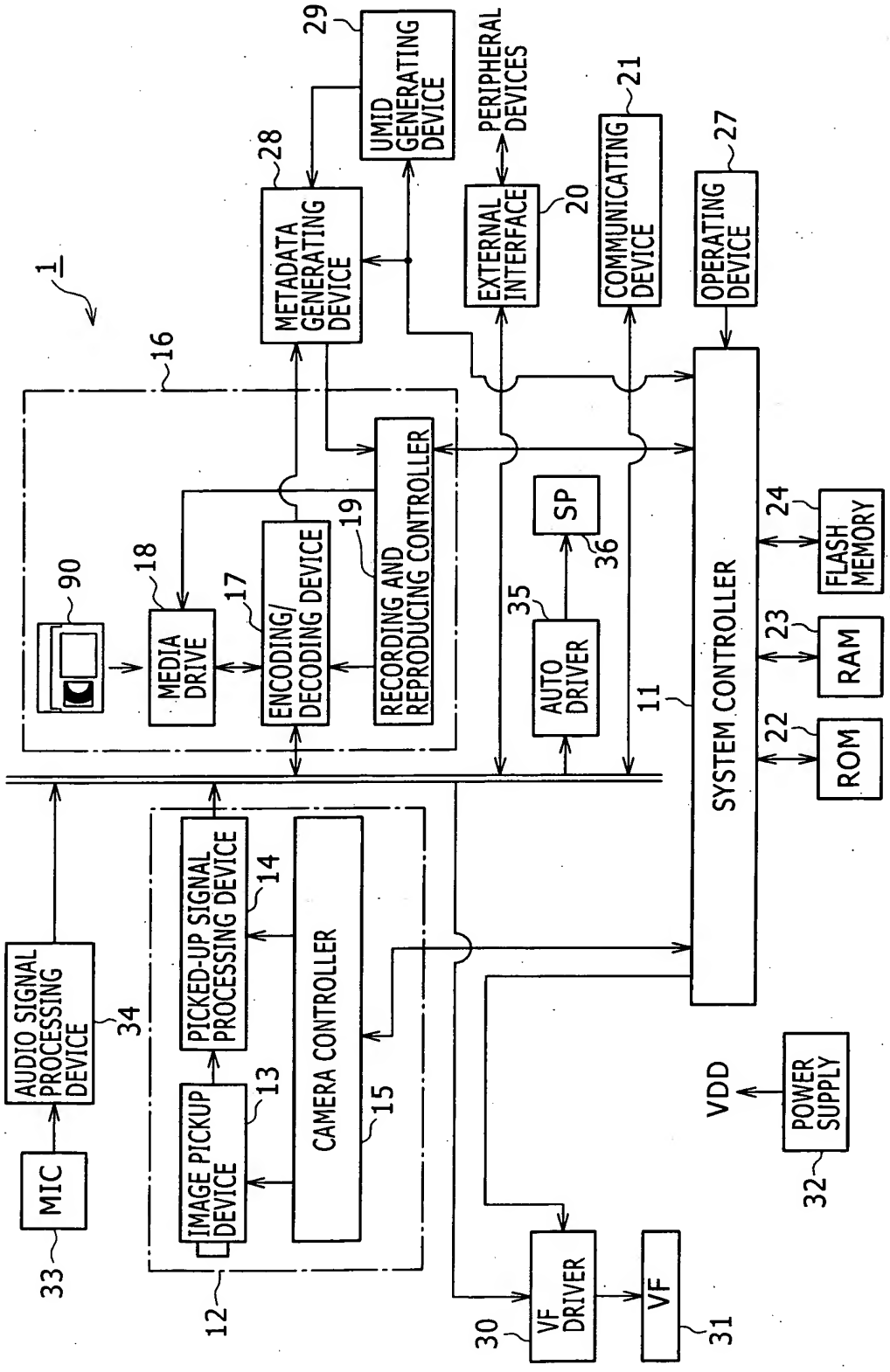
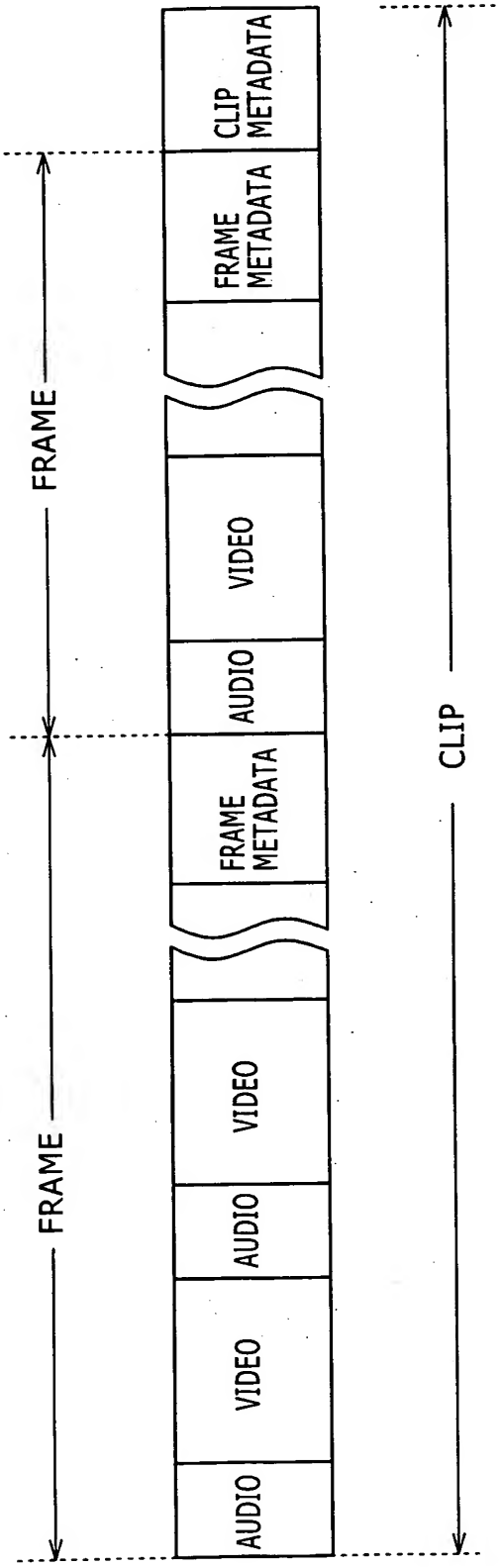

1
16
29
UMID GENERATING DEVICE
28
METADATA GENERATING DEVICE
PERIPHERAL DEVICES
EXTERNAL INTERFACE
20
21
COMMUNICATING DEVICE
27
OPERATING DEVICE
90
18
MEDIA DRIVE
17
ENCODING/ DECODING DEVICE
19
RECORDING AND REPRODUCING CONTROLLER
SP
36
35
AUTO DRIVER
11
SYSTEM CONTROLLER
24
FLASH MEMORY
23
RAM
22
ROM
AUDIO SIGNAL PROCESSING DEVICE
34
PICKED-UP SIGNAL PROCESSING DEVICE
14
CAMERA CONTROLLER
15
IMAGE PICKUP DEVICE
13
MIC
33
12
VDD
POWER SUPPLY
32
VF DRIVER
30
VF
31

FIG. 5


CLIP METADATA
FRAME METADATA
VIDEO
AUDIO
FRAME METADATA
VIDEO
AUDIO
VIDEO
AUDIO
FRAME
FRAME
CLIP

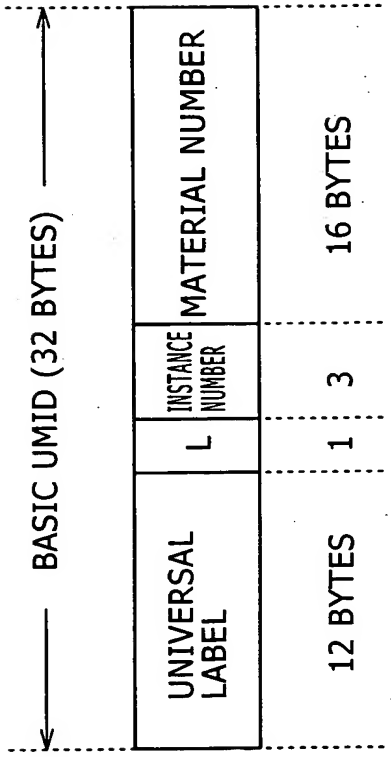

BASIC UMID (32 BYTES)
UNIVERSAL LABEL
L
INSTANCE NUMBER
MATERIAL NUMBER
12 BYTES
1
3
16 BYTES

FIG. 6A

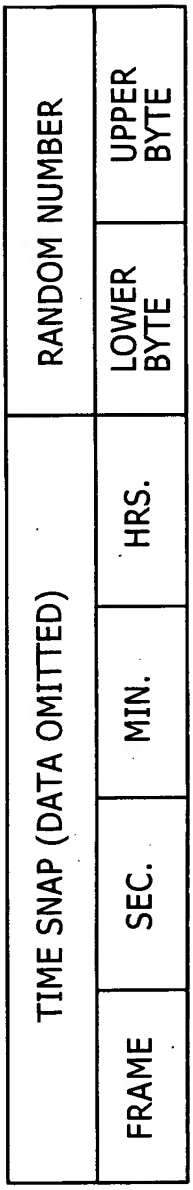

TIME SNAP (DATA OMITTED)
FRAME
SEC.
MIN.
HRS.
RANDOM NUMBER
LOWER BYTE
UPPER BYTE

FIG. 6B

FIG.6C

UNIVERSAL LABEL		INSTANCE NUMBER			MATERIAL NO. (16 BYTES)															
					TIME SNAP (8 BYTES)								RANDOM NUMBER		MACHINE NODE (6 BYTES)					
11th	12th	LOW	MID	UP	FRAME	SEC.	MIN.	HRS.	MJD	MJD	MJD	T ZONE	LOW	UP	1st	2nd	3rd	4th	5th	MSD
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

FIG.6D

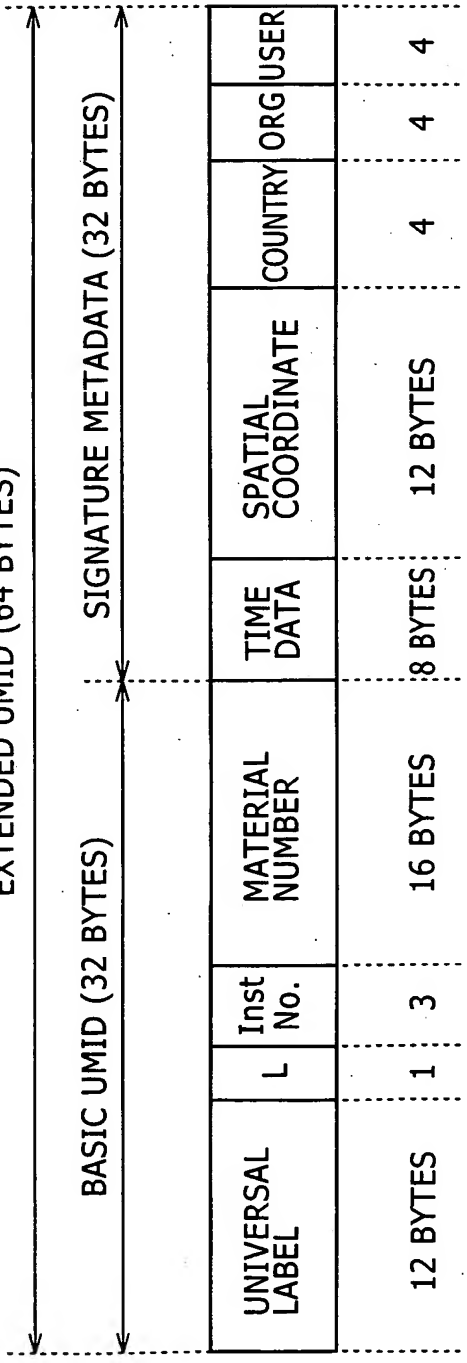


FIG. 7

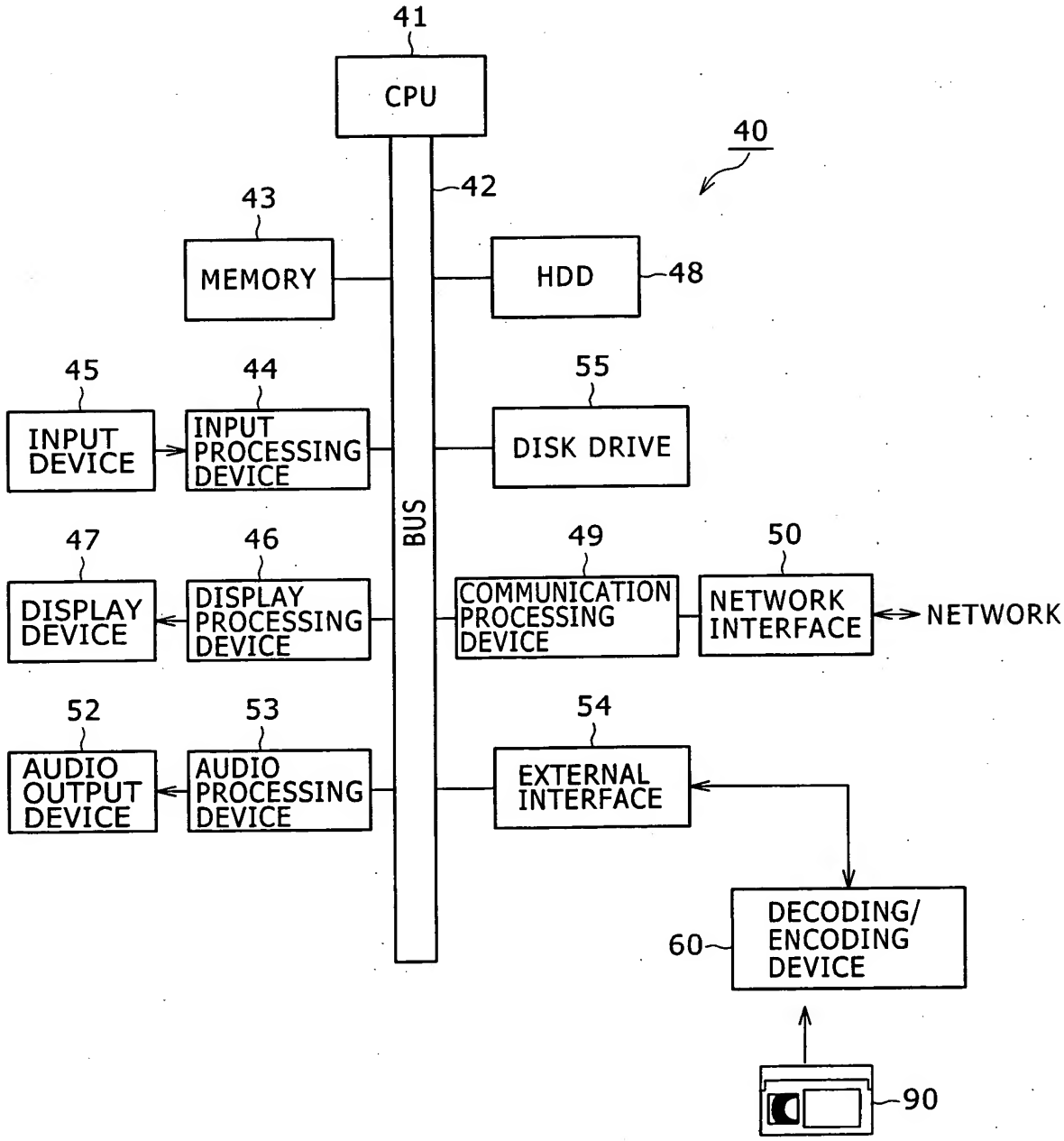

41
CPU
40
42
43
MEMORY
HDD
48
45
44
55
INPUT DEVICE
INPUT PROCESSING DEVICE
DISK DRIVE
BUS
47
46
49
50
DISPLAY DEVICE
DISPLAY PROCESSING DEVICE
COMMUNICATION PROCESSING DEVICE
NETWORK INTERFACE
NETWORK
52
53
54
AUDIO OUTPUT DEVICE
AUDIO PROCESSING DEVICE
EXTERNAL INTERFACE
DECODING/ ENCODING DEVICE
60
90

FIG. 8

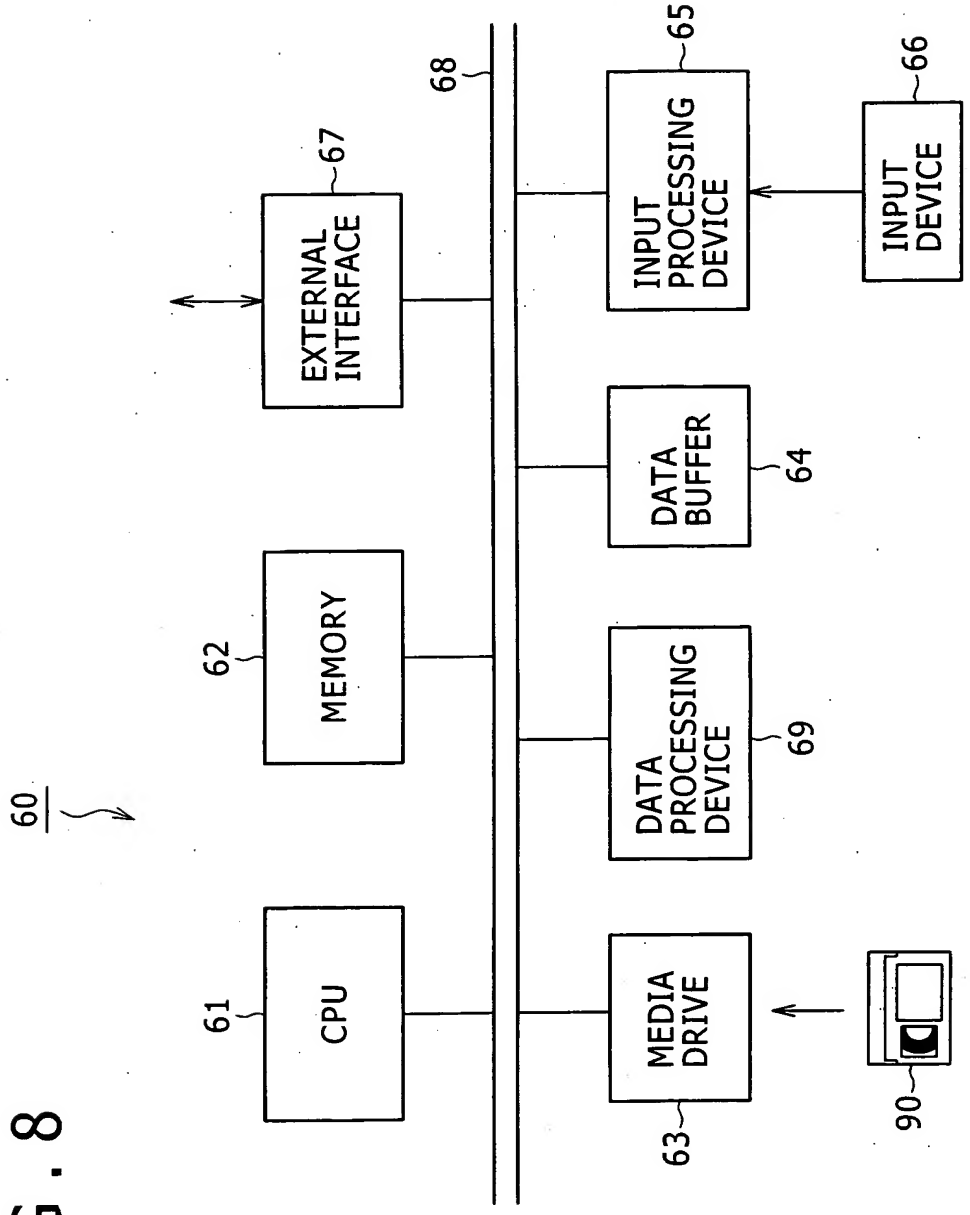

60
CPU
61
MEMORY
62
EXTERNAL INTERFACE
67
MEDIA DRIVE
63
DATA PROCESSING DEVICE
69
DATA BUFFER
64
INPUT PROCESSING DEVICE
65
INPUT DEVICE
66
68
90

FIG. 9A

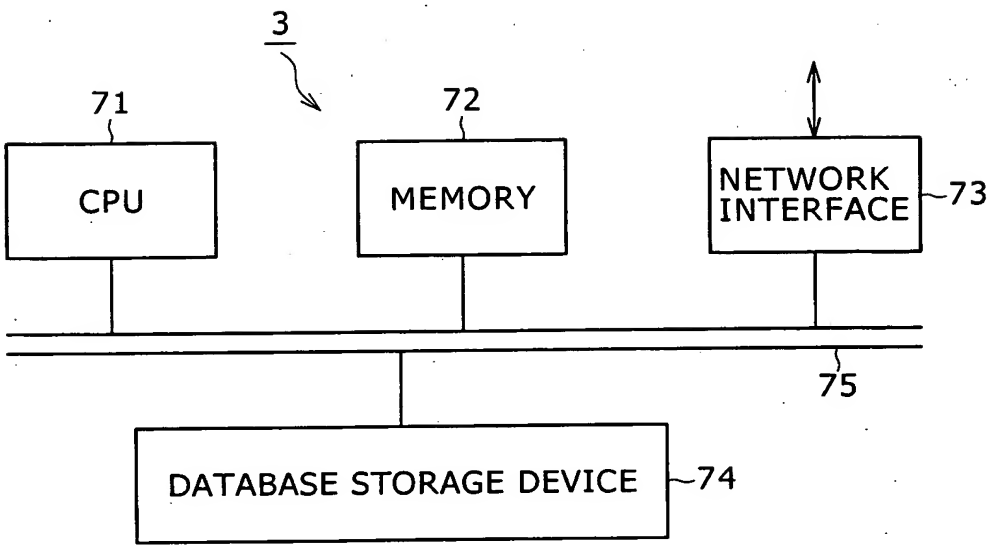
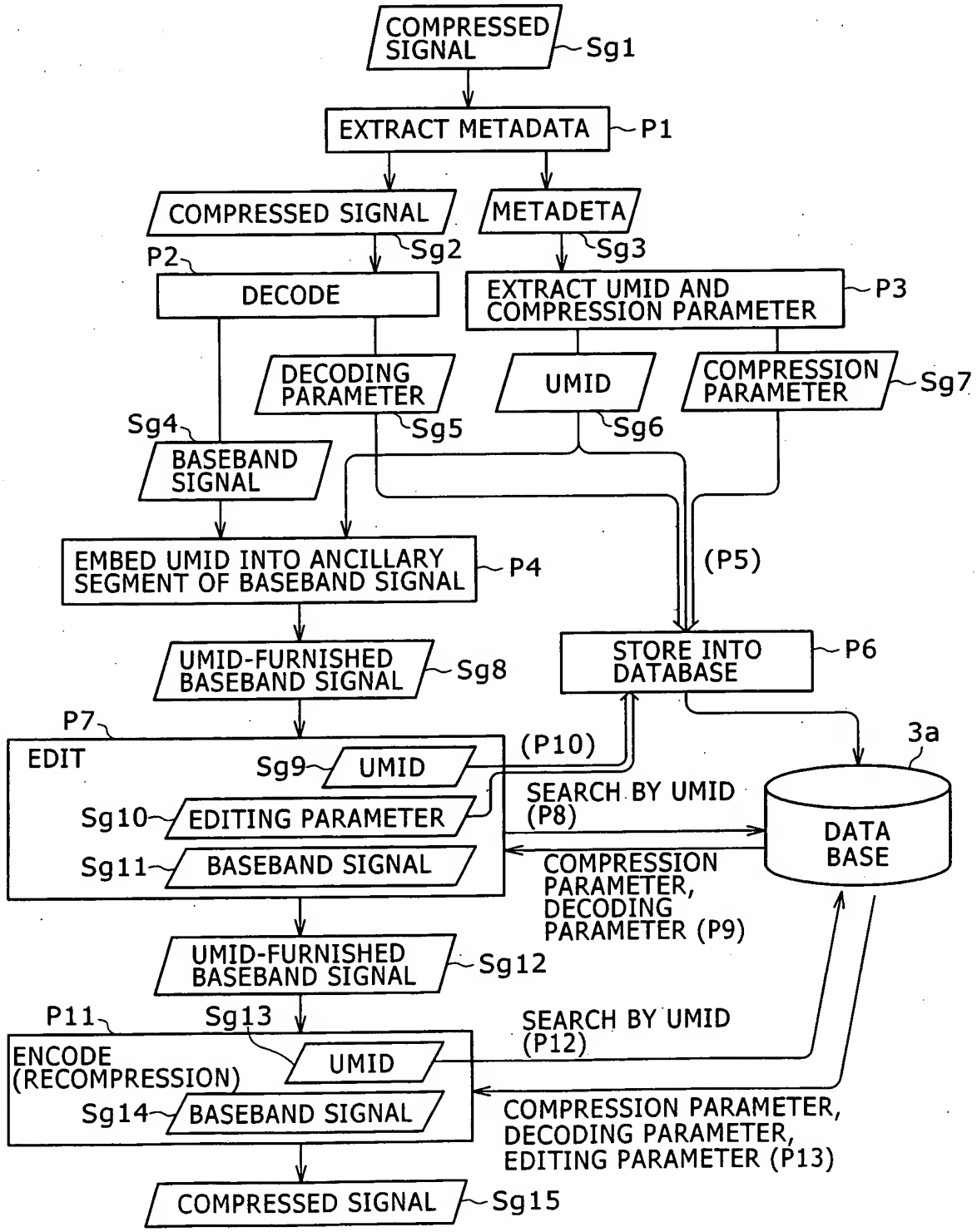


FIG. 9B

UMID	COMPRESSION PARAMETER	DECODING PARAMETER	EDITING PARAMETER	
― ― ―				
○○○				
△△△				
⋮				

FIG. 10


COMPRESSED SIGNAL
Sg1
EXTRACT METADATA
P1
COMPRESSED SIGNAL
METADETA
Sg2
Sg3
P2
DECODE
EXTRACT UMID AND COMPRESSION PARAMETER
P3
DECODING PARAMETER
UMID
COMPRESSION PARAMETER
Sg7
Sg4
Sg5
Sg6
BASEBAND SIGNAL
EMBED UMID INTO ANCILLARY SEGMENT OF BASEBAND SIGNAL
P4
(P5)
UMID-FURNISHED BASEBAND SIGNAL
Sg8
STORE INTO DATABASE
P6
P7
EDIT
Sg9
UMID
(P10)
3a
Sg10
EDITING PARAMETER
SEARCH BY UMID (P8)
DATA BASE
Sg11
BASEBAND SIGNAL
COMPRESSION PARAMETER, DECODING PARAMETER (P9)
UMID-FURNISHED BASEBAND SIGNAL
Sg12
P11
Sg13
SEARCH BY UMID (P12)
ENCODE (RECOMPRESSION)
UMID
Sg14
BASEBAND SIGNAL
COMPRESSION PARAMETER, DECODING PARAMETER, EDITING PARAMETER (P13)
COMPRESSED SIGNAL
Sg15